OBSERVATIONS OF SOME UNUSUAL RAINFOREST AND MARSH BIRDS IN SOUTHEASTERN PERU

THEODORE A. PARKER, III

This paper provides information on the behavior, distribution, and taxonomy of 36 species of rainforest and marsh birds found in the tropical lowlands of southeastern Peru. Most species discussed are little-known forest residents, but some are widespread and common in other regions; occurring in Peru only as migrants or vagrants. Observations reported here were made intermittently from June 1977 to October 1981, during which time I spent about 6 months in the Dpto. Madre de Dios.

The most frequently mentioned locality herein is the Tambopata Reserve, a government protected area of 5000 ha on the south bank of the Río Tambopata some 30 km southwest of Puerto Maldonado (12°50′S, 69°16′W). A tourist lodge, the Explorer's Inn, is situated on the reserve at the confluence of the Tambopata and its tributary, the Río La Torre. In recent years this area has attracted many naturalists, particularly ornithologists, who have found an amazing diversity of animals and plants. Within 10 km of the lodge clearing more than 515 bird species have been recorded, of which 90% are residents and 10% are migrants from north or south. An annotated species list for the reserve has been prepared (Donahue et al., unpubl.). To my knowledge this locality supports the richest avifauna in the world.

The Tambopata Reserve lies on generally flat, forested land at an average elevation of about 250 m. Two main types of rainforest exist within the reserve. "Transitional forest" occurs in low-lying, poorly-drained areas not far from the rivers. Much of this habitat is seasonally inundated by overflow from the rivers, or during the wet months of November to April, by heavy rainfall; annual precipitation has been estimated at 1500-2000 mm, and mean annual temperature falls between 18 and 24°C (G. Hartshorn, unpubl.). The canopy here is uneven, averaging about 30 m. Wooded swamps and thickets of bamboo occur in this terrain. Upland or terra firme forest stands on extensive alluvial terraces that rise to 10 m above the seasonally flooded areas. The canopy of upland forest is more continuous than that of transitional forest, but equally high. There is a welldeveloped understory of short trees and palms in both forest types. One study plot of 1.0 ha in "average forest" on the reserve held 584 trees 10 cm or more in diameter at breast height, representing 153 species, of which only seven were lianas (G. Hartshorn, unpubl.).

Other important habitats on the reserve include shrubby second growth

and thickets of *Gynerium* cane and *Cecropia* trees along banks of rivers, and marsh growth that borders oxbow lakes. Various plants associated with these habitats are mentioned below.

SPECIES ACCOUNTS

Southern Screamer (Chauna torquata).—One individual was seen on 15 July 1979, on the muddy south bank of the Río Tambopata 15 km southwest of Puerto Maldonado. This bird was observed for nearly 15 min by L. Barkley, A. Maley, J. Wall, and myself. Local residents were unfamiliar with the species, which is common on the pampas of northern Bolivia only 250 km to the southeast (Gyldenstolpe 1945b). Pearson (1975) reports more northeasterly records in that country. Our sighting and photographs (by Maley) represent a first record for Peru. The Horned Screamer (Anhima cornuta) is common along the banks of rivers and around oxbow lakes throughout lowland eastern Peru. It seems to replace C. torquata in Amazonia.

Azure Gallinule (Porphyrula flavirostris).-In December 1977 and January 1978, this small gallinule was fairly common (up to 10 counted daily) in floating mats of marsh grasses near the waters' edge of Laguna Cocococha and Laguna Tres Chimbadas, on and near the reserve, respectively. All individuals seen were in the brownish immature plumage. These birds flushed readily when approached by observers in canoes and dropped back into the vegetation only a few meters farther away. No call notes were given. The small size and dark rump and tail contrasting with a lighter olive-brown back and whitish underparts are characteristic field marks in flight. The larger Purple Gallinule (P. martinica) was also present along the lake edges, but they preferred taller, larger-leaved vegetation. On 15 January 1978, A. Mack and I collected an immature P. flavirostris at the edge of Laguna Cocococha (LSUMZ 87171: skull 70% pneumatized; ovary 8 × 6 mm, ova not enlarged; 68 g; iris amber-yellow; frontal shield and culmen green, rest of bill greenish-yellow; tarsi and feet yellowishorange). In 1979 the first individual of P. flavirostris appeared on Laguna Cocococha during the first week of November, and small numbers were observed almost daily through mid-December (T. S. Schulenberg, pers. comm.)

Surprisingly, these are the first records of this species for Peru. Pearson (1975) found this gallinule to be "rare" from November–February at Tumi Chucua, Dpto. Beni, northern Bolivia, and Remsen (unpubl.) considered it a resident near Leticia, Colombia, at the northern border of Peru. Though recorded for the first time in Ecuador only recently (Norton 1965), Tallman et al. (1977) and Ridgely (pers. comm.) have found it to be resident at

Limoncocha, Provincia Napo-Pastaza. P. flavirostris may prove to occur, at least seasonally, throughout lowland, eastern Peru.

Rock Parakeet (Pyrrhura rupicola).—Forshaw (1978) summarized the scanty available information on this parakeet. The species is fairly common in low-lying and upland forest on the Tambopata Reserve, where observed daily in pairs or, more typically, in groups of 3-8 birds. These are often seen flying just below the treetops. Flying birds characteristically remain in a tight group; they flap rapidly several times and then glide a short distance before flapping again, giving raspy, high-pitched flight calls kriik-kriik. Occasionally, members of groups perched in dense foliage high in trees utter shrill kreee notes reminiscent of some vocalizations of the White-bellied Parrot (Pionites leucogaster), another common bird of the reserve. Pyrrhura rupicola is known from only a few scattered localities in southeastern Peru, southwestern Brazil, and northern Bolivia (Forshaw 1978). Meyer de Schauensee (1966, 1970) gives the "subtropical zone" as the elevational range of this parakeet. In fact, it inhabits lowland and hill forest in the "tropical zone" east of the Andes. To my knowledge the species is not sympatric with any other Pyrrhura; it apparently replaces forms of the Painted Parakeet (Pyrrhura picta) between Dpto. Junín, Peru, and Dpto. La Paz, Bolivia.

Ash-colored Cuckoo (Coccyzus cinereus).—One of these distinctive cuckoos was observed on 13 July 1977, in transitional forest on the reserve by S. A. Parker, P. Alden, and myself. The bird was hopping along branches and vines in the lower canopy of a tall forest tree, and was apparently associating with a mixed-species flock that included Chestnut-winged Hookbills (Ancistrops strigilatus), Rufous-tailed Xenops (Xenops milleri), Spot-winged Antshrikes (Pygiptila stellaris), and numerous tanagers, honeycreepers, and greenlets. The cuckoo was carefully watched for at least 10 min; the Coccyzus behavior, overall grayish coloration, reddish eye, and rather short, square, white-tipped tail were marks noted at the time. C. cinereus was until now known to range north in western South America as far as Dpto. Beni (Gyldenstolpe 1945b). It breeds mainly in the Chaco of Paraguay and northern Argentina (Short 1975) and is probably only an austral winter visitor north of that region.

Least Pygmy-Owl (Glaucidium minutissimum).—On the Tambopata Reserve this owl is regularly heard, especially in clearing edge and river edge woodland, where syntopic with Ferruginous Pygmy-Owl (G. brasilianum). Unlike the latter, however, Least Pygmy-Owls are also found in the interior of transitional and upland forest. Individuals sing most often at dawn and dusk, but also sporadically through the day and night. The song consists of a descending series of about six soft whistles. G. minutissimum

has been previously reported from only two Peruvian localities (O'Neill 1969, O'Neill and Pearson 1974), but recently it has also been found in Manu National Park, Dpto. Madre de Dios (Terborgh et al., unpubl.). The species is probably widespread, but often overlooked, in Amazonia.

Pale-breasted Spinetail (Synallaxis albescens).—Between mid-July and mid-August 1979, and again from 1-3 November 1979, several of these spinetails were present in tall grass under willows (Salix sp.) and other trees and shrubs (especially Tessaria sp.) on a sand bank of the Río La Torre near its junction with the Río Tambopata. The birds were observed by P. Donahue, T. Schulenberg, myself, and many others. These individuals of S. albescens were elusive and not at all vocal; they remained in grass until flushed into nearby trees and shrubs. A specimen referable to the southern race australis was netted on 20 August 1979 (LSUMZ 92153: skull 30% pneumatized; ovary not enlarged; 9 g; iris reddish-brown; maxilla slate, mandible silvery-gray; tarsi and feet olive-vellow). These records of S. albescens are the first for Peru. An earlier report (Meyer de Schauensee 1966) is erroneous (fide Manuel Plenge). The species was known to occur as close to Peru as the Dpto. Beni, Bolivia (Gyldenstolpe 1945b) and near Leticia, on the Colombian bank of the Amazon (Remsen unpubl.; specimen, Museum of Vertebrate Zoology). It is not known whether the birds noted on the reserve were residents or migrants from the south.

Peruvian Recurvebill (Simoxenops ucayalae).—This distinctive ovenbird is uncommon or rare on the reserve. It frequents dense undergrowth 0.5-4 m above ground in low-lying forest and is seen singly, in pairs or groups of 3-4 individuals. The species seems to favor bamboo thickets, but it is not restricted to them. They hop along branches and trunks of fallen trees and understory palms, and M. Robbins (pers. comm.) saw them hammering dead bamboo stalks, presumably to dislodge prey items. The call is a loud chek or chack, and what is presumably the territorial song consists of a rising and accelerating series of these notes given in rapid succession. This latter vocalization is similar in pattern and quality to the territorial songs of foliage-gleaners of the genus Syndactyla, the Buff-browed Foliage-gleaner (S. rufosuperciliata), and the Lineated Foliage-gleaner (S. subalaris). Six specimens (LSUMZ 84720, 86398, 86399, 87887, 98023, 98302) of S. ucayalae were collected on the reserve, on 20 and 23 July 1977, 5 January 1978, and 8 June and 19 November 1980. Two adult males and one adult female (crania fully pneumatized, gonads not in breeding condition) collected in July weighed 50, 50, and 53 g, respectively. A female collected by J. P. O'Neill at Balta (300 m), on the Río Curanja, Dpto. Loreto, 3 April 1971 (ovary not enlarged) weighed 55 g. Perishable colors of specimens with fully pneumatized crania were as follows: iris dull gray-brown (1 ♂) or dark brown (1 ♀, 1 sex?); maxilla

gray with blackish base $(1\ \delta)$, dark olive-gray $(1\ \circ)$, or slate-black $(1\ \text{sex?})$; mandible silvery-blue $(1\ \delta)$, silvery $(1\ \circ)$, or bluish-gray $(1\ \text{sex?})$; tarsi and feet olive-green $(1\ \delta, 1\ \circ)$ or grayish-green $(1\ \text{sex?})$. A female taken by M. Robbins on 19 November had the cranium 80% peneumatized; it differed from the specimens listed above in having a horn-colored maxilla. A juvenile (sex?) taken on 5 January weighed 51 g. It is much paler than the adults, being buffy below with the breast and belly feathers tipped dusky-brown; the throat is distinctly whitish with dusky-brown tips to some feathers; the superciliary line is buff as opposed to rufous of the adult; the crown and back are only slightly paler than the adult. This plumage has been described only recently (Vaurie 1980). S. ucayalae was known from fewer than 10 specimens from only two other localities in Peru (O'Neill 1974), but it has recently also been found in Manu National Park (Terborgh et al., unpubl.).

Brown-rumped Foliage-gleaner (Automolus melanopezus).—An uncommon or rare bird on the reserve, this inconspicuous furnariid inhabits lowlying forest where it seems to be closely associated with bamboo. Individuals and pairs were found in at least four large thickets of Guadua bamboo, where they frequented dense cover from 3-8 m above ground. The species occasionally associated with mixed-species flocks, especially those comprised of the Ornate Antwren (Myrmotherula ornata), Striated Antbird (Drymophila devillei), and Warbling Antbird (Hypocnemis cantator). The song of A. melanopezus is comprised of two emphatic introductory notes followed by a rapid succession of harsh notes (whit-whit-wut-trrrrrrr) about 3 sec long. One specimen was netted in dense undergrowth near a forest stream (LSUMZ 87895: 5 Jan. 1978; skull fully pneumatized; testes 11 × 8 mm; 30.5 g; iris red; bill dusky-gray; tarsi and feet olive-green); and another was netted in bamboo (LSUMZ 98303: 13 Nov. 1980; skull pneumatized; testes 14 × 6 mm; heavy body molt; no weight; iris reddishbrown; bill horn-colored; tarsi and feet yellowish-gray; taken by M. Robbins). Though this species is probably widespread in Amazonian Peru, there is only one published record for the country (O'Neill 1969). Terborgh et al. (unpubl.) also list A. melanopezus from Manu National Park.

Rufous-tailed Xenops (Xenops milleri).—This relatively large Xenops can be observed daily in small numbers in both transitional and terra firme forest on the reserve. It is nearly always seen with mixed-species flocks of tanagers, greenlets, and antwrens that move through the canopy and subcanopy. In contrast to the syntopic Plain Xenops (X. minutus), which in this area is mainly an undergrowth and lower middlestory species, X. milleri is usually observed 15–25 m above ground. The species forages by hopping along bare, slender branches and vines (usually not exceeding 2 cm in diameter) and constantly turning from side-to-side; prey items are

often gleaned from the sides and undersurfaces of branches. Though no specimens were obtained, *X. milleri* can be instantly recognized by its buffy, heavily streaked underparts, and its lack of a silvery malar steak. The Rufous-tailed Xenops was known from only a few localities in Amazonia, and only one from Peru (Peters 1951).

Sclater's Antwren (Myrmotherula sclateri).—Although inconspicuous, this antwren is common in the canopy of transitional forest, and uncommon in canopy of terra firme. Pairs live amidst dense foliage and vine tangles at least 12 m above ground. These birds glean stems and leaves, and occasionally pick at spider webs and bark of branches and vines. The song is a series of plaintive, whistled peer notes repeated 3-6 times with only short intervals between them; these series are usually given about 5 sec apart. This vocalization can be mistaken for the song of the Fasciated Antshrike (Cymbilaimus lineatus), which occurs in the same habitat. In response to playback, both male and female of a pair of M. sclateri will descend to within about 8 m of the ground. The disturbance call is a soft. but oft-repeated wit. These antwrens occasionally follow mixed-species flocks of other antwrens, honeycreepers, and tanagers. M. sclateri overlaps ecologically with the very similarly-colored Pygmy Antwren (M. brachyura). The latter, however, seems to prefer disturbed forest (i.e., edges of treefall clearings) and may not normally forage as high as M. sclateri. Sclater's Antwren was previously known from one locality in Peru (O'Neill 1969), and only a few other localities in Amazonia (Meyer de Schauensee 1966).

Ihering's Antwren ($Myrmotherula\ iheringi$).—This antwren is seemingly the rarest Myrmotherula on the reserve. The species is closely associated with bamboo, though it was also seen in adjacent forest undergrowth. M. iheringi is invariably noted in pairs moving through the crowns of bamboo thickets, often in the company of the Ornate Antwren (M. ornata) and the White-eyed Antwren (M. leucophthalma). The song of M. iheringi is a long series of 18–25 peeu notes uttered at short intervals on one pitch. A specimen secured in bamboo (LSUMZ 98335: 1 November 1980; skull pneumatized; testes 3×2 mm; 7.5 g; iris dark brown; bill black; tarsi and feet gray) by M. Robbins verifies the occurrence of this species in Peru. Munn and Terborgh (1979) list M. iheringi as an occasional member of mixed-species flocks in Manu National Park. Ihering's Antwren was previously known from only a few localities in western Brazil (Meyer de Schauensee 1966).

Striated Antbird (*Drymophila devillei*).—Like its Andean relative the Long-tailed Antbird (*D. caudata*), this beautiful bird appears to be dependent on bamboo for cover. The species is found in pairs or family groups

in the dense crowns of thickets 2–7 m above ground. Individuals hop deliberately along bamboo branches, picking insects, especially small caterpillars, off nearby leaves, bark, and *Tillandsia*-like epiphytes. They occasionally lunge out and sally-glean a prey item from a surface up to 30 cm away. While foraging they often jerk their tails from side-to-side and utter soft *chip* or *chep* notes. The territorial song of the male is an explosive, very raspy series, *bzeent-bzeet-bzeet-zeet-titititi*. A similar version of this vocalization is given by the female, usually in response to the male's song. The songs and calls of this species are much like those of *D. caudata* of the Andes, the Ochre-rumped Antbird (*D. ochropyga*), and Rufoustailed Antbird (*D. genei*) of southeastern Brazil.

The spotty distribution of *D. devillei* in Amazonia (Peters 1951) surely reflects the patchiness of the bird's habitat. A variety of other birds found on the reserve seem to be closely associated with bamboo; these include such diverse forms as the Rufous-headed Woodpecker (*Celeus spectabilis*), *S. ucayalae*, *M. ornata*, Large-headed Flatbill (*Ramphotrigon megacephala*), Flammulated Pygmy-Tyrant (*Hemitriccus flammulatus*), and Slate-colored Seedeater (*Sporophila schistacea*).

It is interesting to note that the close relatives of *D. devillei*, *Hemitriccus flammulatus*, and *S. schistacea* (i.e., *D. ochropyga*, Drab-breasted Pygmy-Tyrant [*Hemitriccus diops*], and Temminck's Seedeater [*Sporophila falcirostris*]), are found in bamboo in montane or subtropical areas from southeastern Brazil to northeastern Argentina. This suggests that certain bamboos were an important floristic element in a relatively cool, humid forest that may have once extended from the Andes to the Atlantic south of Amazonia proper. Other taxa that are associated with bamboo (pers. obs.) and that show similar disjunct distributions across the South American continent include the Maroon-chested (*Claravis mondetoura*) and Purplewinged (*C. godefrida*) ground-doves, Buff-browed Foliage-gleaner (*Syndactyla rufosuperciliata*), Giant Antshrike (*Batara cinerea*), Slaty (*Haplospiza rustica*) and Uniform (*H. unicolor*) finches, and Blue (*Amaurospiza concolor*) and Blackish-blue (*A. moesta*) seedeaters.

Chestnut-shouldered Antwren (*Terenura humeralis*).—This small, warbler-like antbird is an inconspicuous member of mixed-species flocks in the canopy of both transitional and terra firme forest on the reserve. Usually encountered in pairs, these birds are most often seen near the ends of branches where they glean leaves. In the field they may easily be confused with greenlets (*Hylophilus*), especially the syntopic Dusky-capped Greenlet (*H. hypoxanthus*). *T. humeralis* can be located by listening for its territorial song, a high-pitched series of chipping notes that speeds to a trill towards the end. In response to playbacks of this vocalization, males

will descend to within 8 m of the ground and counter-sing; when excited, their chestnut lower back feathers become quite conspicuous. A soft disturbance wit is also uttered. T. humeralis is very similar in voice and behavior to at least three of the four other Terenura, the Rufousrumped Antwren (T. callinota), Yellow-rumped Antwren (T. sharpei), and Ash-winged Antwren (T. spodioptila); the fourth, the Steaked-capped Antwren (T. maculata), has quite a different song, but it too is a canopydwelling, flock-following species. Though I was unable to collect a specimen of T. humeralis, it is the only member of its genus known from lowland Peru (from only one record, Peters 1951). The species has also been taken in adjacent southwestern Brazil (Gyldenstolpe 1945a).

Band-tailed Antbird (Hypocnemoides maculicauda).—This antbird and the Silvered Antbird (Sclateria naevia) are restricted to the edges of wooded swamps and oxbow lakes, and seasonally flooded forest, where Hypocnemoides frequents overhanging or emergent branches of fallen trees within a few centimeters of water, Sclateria, in contrast, hops on leaf litter and logs at the water's edge. Numbers of both species increase dramatically along the edges of oxbow lakes during the dry season (July-October) when many woodland streams and swamps dry up. H. maculicauda gleans insects off branches, and occasionally sally-gleans prev from the ground or water. The song of the species is very like that of its northern counterpart the Black-chinned Antbird (H. melanopogon), but is longer and has an introductory component not given by individuals of melanopogon in Venezuela (pers. obs. from recordings of the latter by P. Schwartz in the LNS). The song of H. maculicauda is a rising, accelerating series that ends abruptly with several raspy notes, pee-pee-pee-pee-pipipipipi bzztbzzt-bzzz. The Band-tailed Antbird is widespread in Amazonia south of the Marañón and Amazon rivers (Meyer de Schauensee 1966), but it is relatively scarce in collections from Peru.

White-lined Antbird (*Percnostola lophotes*).—Individuals of this species have evidently been described as two different species. Hellmayr and Seilern (1914) gave what was almost certainly an immature male the name *P. lophotes*. Then Berlioz (1966) described a single adult male as *P. macrolopha*. S. A. Parker and I netted a male and female together on the Tambopata Reserve, and we compared our specimens (LSUMZ 84891, 84892) with the respective descriptions cited above. Hellmayr and Seilern's (1914) description of the male agrees closely with our female-plumaged specimen, with the exception of the blackish primary coverts of their bird, a characteristic of male *lophotes*. Our male *lophotes* is nearly identical to that described by Berlioz (1966).

P. lophotes is a fairly common inhabitant of low, damp thickets of Guadua bamboo and Gynerium cane in low-lying forest and along the river edges on the reserve. Nearly always observed in pairs, these antibrids hop

slowly through the undergrowth and glean foliage and bark of slender branches and trunks from 0.5–2 m above ground. They constantly flick the tail down and raise it slowly, lifting the closed wings in the process. The long crest is held conspicuously erect much of the time, especially when birds have been disturbed. The primary vocalization is a loud, farcarrying series comprised of an introductory kep followed by a descending (bouncing) succession of kup notes (kep kup-kup-kup-kup-p-p-ppp). This song is uttered by territorial males from dawn until about 08:30 on clear days; the female gives a similar song in response to that of the male. The call is a loud, slightly nasal aaah. Calling birds perch upright, with neck outstretched and bill pointed upwards, slowly raising and lowering their crests. Once, after I played back songs of a pair, the birds sat side-byside, about 3 cm apart, and pecked at exposed areas of skin on the neck and head of their mate.

In both vocalizations and behavior P. lophotes is reminiscent of certain antshrikes (Thamnophilus spp., Sakesphorus spp.), and it is quite unlike two other supposed congeners, the Spot-winged Antbird (P. leucostigma) and the Black-headed Antbird (P. rufifrons). P. leucostigma utters a peculiar trilled song, and P. rufifrons whistles a musical series of notes reminiscent of the song of Goeldi's Antbird (Myrmeciza goeldii). To my knowledge, neither utters the Thamnophilus-like aaah notes of P. lophotes. I suspect that the three Percnostola listed above will eventually be shown not to be congeneric. Five specimens of P. lophotes (LSUMZ 84891-84893, 92421, 99371) were mist-netted on the reserve on 17, 19, and 20 July 1977, 1 November 1978, and 8 December 1980. An adult male and an adult female (crania fully pneumatized; gonads not in breeding condition) collected in July weighed 33.5 and 30 g respectively. Soft-part colors of these individuals were as follows: iris dark brown (male) and reddish-brown (female); maxilla black (male) and dusky black with silvery tomium (female); mandible black (male) and silvery-gray (female); tarsi and feet medium gray (male, female). The iris color in two other adult males (with fully pneumatized crania) differed in being gray, and gray with reddish flecks around the pupil. P. lophotes was previously known from only four examples from three localities in southern Peru (Meyer de Schauensee 1966); recently it has also been found in Manu National Park (Terborgh et al., unpubl.).

Goeldi's Antbird (*Myrmeciza goeldii*).—The loud, whistled song of this large antbird is a characteristic sound of low-lying forest on the reserve. This uncommon species frequents open to moderately dense undergrowth, including bamboo, from the ground to about 2 m above it. A nest found on 30 September 1980, was on the ground amidst dense undergrowth of bamboo and cane; the cup of dried leaves and twigs measured about 18 cm in diameter and contained a single, white egg, with irregular blotches

of reddish-brown coloration over its entire surface. Both male and female took turns incubating this egg, which disappeared from the nest 5 days after discovery (M. Robbins, pers. comm.). The song is a ringing, whistled piti-peeur-peeur-peeur delivered from a perch 1-3 m above ground. A loud kep-kep is also part of the repertoire; this vocalization, I believe, is a disturbance or alarm call. The songs and calls of M. goeldii are very similar to those of the White-shouldered Antbird (M. melanoceps). As in the case of the Bluish-slate Antshrike (Thamnomanes schistogynus) and the Cinereous Antshrike (T. caesius), where females differ strikingly in color pattern, these antbirds replace each other ecologically and geographically. Six specimens of M. goeldii (LSUMZ 84908-84910, 86407, 92422, 98346) were mist-netted on the reserve on 19, 21, and 23 July 1977, and 15 November 1980. Two adult males and two adult females (with fully pneumatized crania; gonads not enlarged) collected in July weighed 48.5, 41, 43, and 43 g, respectively. An unsexed bird (female by plumage) from the same month weighted 40 g. Typical perishable colors in both sexes were as follows: iris crimson red; bill black; tarsi and feet blue-gray; exposed facial skin blue-gray. An adult female collected on 15 November by M. Robbins was in reproductive condition, with one ovum 10×9 mm.

M. goeldii was previously known from only three localities, two in Brazil and one in eastern Peru (O'Neill 1969). It has also recently been found in Manu National Park (Terborgh et al., unpubl.)

Striated Antthrush (Chamaeza nobilis).—As with the Short-tailed Antthrush (C. campanisona), this species is best detected by its voice. C. nobilis is apparently rare on and near the reserve as there are only six records for the area. I observed two different individuals in July 1979; both were walking on the ground in tall forest with sparse undergrowth. One of these birds was singing, and in response to playbacks of its own voice, the bird approached and walked in semicircles about 10 m in front of me. The song is similar to that of C. campanisona in having an accelerating introductory series of hollow whistles followed by a terminal succession of rather harsh wah notes. The entire sequence is about 8 sec long, being generally higher-pitched and faster than that of C. campanisona.

C. nobilis is widespread, but perhaps local in Amazonia (Meyer de Schauensee 1966). The above records are the southernmost for the species, which has recently been observed in Manu National Park (Terborgh et al., unpubl.) as well.

Ash-breasted Gnateater (Conopophaga peruviana).—I have little information on this poorly known species, though it is present in small numbers in transitional forest on the reserve. On one occasion in January 1978, I taped the call note, a loud chink, of an immature male, and in response to playbacks the bird hopped about me in the open undergrowth (about 1 m above ground) and held its striking white postocular tufts straight out

from its head. All my observations have been of individuals perching 0.5–1 m above ground, usually sideways on the trunks of slender saplings or on branches of fallen trees. This report is the southernmost for *C. peruviana*.

Yellow-browed Tyrant (Satrapa icterophrys).—On 15 June 1977, I saw one of these flycatchers in shrubby second-growth on the outskirts of Puerto Maldonado. Another very worn individual was noted on 21 June 1977, in bushes at the marshy edge of Laguna Cocococha on the reserve. From mid-July to mid-August 1979 at least six Satrapa were present in a small area of Salix and Tessaria trees along the Río La Torre. These birds seemed to be associating with other flycatchers including Rufous Casiornis (Casiornis rufa), Short-crested Flycatcher (Myiarchus ferox), and Plain Tyrannulet (*Inezia inornata*), all of which, with the probable exception of M. ferox, were probably migrants from the south. One S. icterophrys was seen there as late as 14 November 1979 (T. S. Schulenberg, pers. comm.). Several Satrapa were also noted in this same area from June until mid-September 1980, after which time they disappeared (M. Robbins, pers. comm.). The species perched in foliage of trees and shrubs from 1-7 m above ground, and made outward sally-gleans to foliage and twigs. Prey included numerous caterpillars at least 1 cm in length. One specimen of S. icterophrys was netted in the willows (LSUMZ 92728: 22 July 1979; skull fully pneumatized; testes 3 × 2 mm; 18 g; stomach full of insect remains; iris medium brown; bill black; tarsi and feet black). Peru was not included in the range as given by Meyer de Schauensee (1966, 1970), but Traylor (1979) reported the occurrence of this species in the country without giving exact localities. Eventually, S. icterophrys may prove to be a widespread, uncommon visitant to lowland eastern Peru.

Rusty-margined Flycatcher (*Myiozetetes cayanensis*).—This flycatcher is apparently resident in small numbers in marsh vegetation at the edges of Laguna Cocococha, Laguna Tres Chimbadas, and Laguna Cochachica on the reserve. It was first found by R. S. Ridgely on 30 June 1978, and has subsequently been seen constantly by many observers. Tape recordings made on the reserve of the distinctive call of the species, a clear, down-slurred whistle, are on deposit in the LNS. This is the first report of the Rusty-margined Flycatcher for Peru, though it has been taken in adjacent northern Bolivia (Meyer de Schauensee 1966).

Rufous Casiornis (Casiornis rufa).—During July-August 1979 one or two of these tyrannids were regularly observed in riparian growth (see account of S. icterophrys) along the Río La Torre. The birds perched 1–7 m above ground and made 0.5–2 m forward and upward sallies to glean foliage. No vocalizations were heard. One specimen was netted (LSUMZ 92749: 22 July 1979; skull fully pneumatized; testes 2×1 mm; 19 g; iris medium brown; bill gray-brown, basal one-half flesh-pink; tarsi and feet grayish-

black). This is the second reported occurrence in Peru of this species (see Parker and O'Neill 1980).

White-cheeked Tody-Flycatcher (Poecilotriccus albifacies).—On 19 August 1979. I briefly observed a female of this species as it perched and foraged 2 m above ground in a bamboo thicket along the main trail on the reserve. Thereafter, a pair was regularly seen in the same area through late October 1981, at which time I knew of the presence of two additional pairs on the reserve, and two others in adjacent areas. P. albifacies seems to be entirely restricted to Guadua bamboo. Most observations were of pairs that remain within the crowns of thickets from 3-9 m above ground. Typical foraging movements include 3-6 cm upward and forward sallygleans of bamboo foliage and branches. Though normally they perch upright, occasionally individuals will hop along a branch and perch-glean nearby surfaces. The frequently heard call of P. albifacies is an emphatic tick-picpicpicpic, which is given by both sexes. Vocally, and in terms of foraging behavior, this species is quite reminiscent of another bambooinhabiting flycatcher, the Flammulated Pygmy-Tyrant (Hemitriccus flammulatus). Only one specimen of the White-cheeked Tody-Flycatcher has been reported to date (Blake 1959), though a small series was recently collected by J. W. Fitzpatrick (unpubl.) and a single male was obtained by M. Robbins (unpubl.), all from extreme southeast Peru.

White-lored Tyrannulet (Ornithion inerme).—This tiny flycatcher is fairly common on the reserve, but very difficult to observe. Its song is a persistently repeated, high pitched whee-whee-whee-whee uttered from a treetop perch, often over wooded swamps or at the edges of clearings and oxbow lakes. In response to playbacks, individuals sometimes descend to within 10 m of the ground and give a buzzy, trilled call. A specimen was netted in transitional forest undergrowth by T. Schulenberg on 9 November 1979 (LSUMZ 92889; skull 40% pneumatized; testes 5 × 3 mm; 7 g; iris brown; bill and tarsi black). The species was not known to range south of Dpto. Pasco and Dpto. Loreto (Traylor 1979). O. inerme is probably widespread and not uncommon in Amazonia, and it no doubt occurs in northern Bolivia.

Subtropical Doradito (Pseudocolopteryx acutipennis).—In mid-July 1979, several of these flycatchers were found in meter high grass under Salix and Tessaria trees near the bank of the Río La Torre. When flushed, individuals flew rapidly low over the grass and dropped back 10 m or more away. One specimen (LSUMZ 92825: 22 July 1979; skull 50% pneumatized; testes not enlarged; 6 g; stomach with insects including beetle parts; iris brown; maxilla black, mandible flesh-colored; tarsi and feet gray) was flushed into a net. These records are the first for Peru away from the Andes, and the birds were probably migrants (see Traylor 1979).

Plain Tyrannulet (Inezia inornata).—This species was common in Salix and Tessaria trees along the Río La Torre in July-August 1979, from June through late September 1980, and from late May to late October 1981. In this locality, Plain Tyrannulets were encountered in groups of up to six birds in association with other flycatchers (see under S. icterophrys). Inezia resembled a warbler (Vermivora sp.) or kinglet (Regulus sp.), gleaning and hover-gleaning foliage at all heights in trees. Two specimens were mist-netted on 22 July 1979 (LSUMZ 92838: skull fully pneumatized; ovary 2 × 2 mm; 4.5 g; iris brown; bill dark horn; tarsi and feet slate-colored; LSUMZ 92839: skull pneumatized; ovary 3 × 2 mm; 5.5 g; iris brown; bill dark horn, base of mandible flesh-colored; tarsi and feet gray). Traylor (1979) gave the first record for Peru, also from Dpto. Madre de Dios. The species is almost surely an austral migrant in southeastern Peru.

Buff-breasted Wren (Thryothorus leucotis).—Two specimens (LSUMZ 88581, 92976) of this wren were netted, one in low secondary growth at the edge of the lodge clearing by B. Sorrie and the other in dense vegetation at the edge of a small lake by E. Mackrill. A few others have been seen and tape-recorded in shrubbery along the edge of Laguna Tres Chimbadas. The above specimens have been compared to examples of leucotis from farther north (Pucallpa, Dpto. Loreto) and the Fawn-breasted Wren (T. guarayanus) from farther south (Riberalta, Dpto. Beni, Bolivia). The Tambopata specimens agree closely with examples of T. l. peruanus from central Peru, and thus represent a southerly range extension for that form. Thryothorus guarayanus specimens from Riberalta differ from T. l. peruanus in having shorter bills, grayer crowns and backs, and generally slightly paler underparts, but are otherwise quite similar to that form. Pearson (1975), and Remsen and Ridgely (pers. comms.) found guarayanus in edge habitats like those of leucotis in Peru.

Veery (*Catharus fuscescens*).—An individual of this thrush was seen on 5 November 1980 at the edge of a bamboo thicket (M. Robbins, pers. comm.). The bird was well seen at 10 m; the observer noted its rusty upperparts, lack of an eye-ring, and a buffy wash on an indistinctly marked breast. This is the first report of *C. fuscescens* in Peru. The species is known to range south to Mato Grosso in Brazil (Meyer de Schauensee 1966) and Bolivia (Remsen and Ridgely 1980).

Creamy-bellied Thrush (*Turdus amaurochalinus*).—This thrush occurs in small numbers in Peru from June to October; it is apparently a migrant from the south. On the reserve the species is most often seen near or on the ground at clearing edges, and in the *Salix-Tessaria* growth along the Río La Torre. I have not heard the species sing in Peru. The LSUMZ has 15 specimens of *T. amaurochalinus* taken from Dpto. Loreto (Balta, Río Curanja), and several localities in Dpto. Madre de Dios; these were

collected from 15 June (Balta)–3 October (105 km west of Puerto Maldonado). The species was previously recorded in Peru only from Dpto. Puno (Meyer de Schauensee 1966).

Lawrence's Thrush (Turdus lawrencii).—Despite its spotty distribution in Amazonia (Meyer de Schauensee 1966), this species is fairly common on the reserve. Anyone visiting the area should soon hear the song of this bird, which consists of a very long continuous series of near-perfect imitations of portions of songs and call notes of other bird species. As many as 35 bird species are imitated by some individuals of T. lawrencii. These range from the ground-dwelling Little Tinamou (Crypturellus soui) and Black-faced Antthrush (Formicarius analis) to Warbling Antbird, Chestnut-tailed Antbird (Myrmeciza hemimelaena) and M. goeldii of the undergrowth, and Black Hawk-Eagle (Spizaetus tyrannus), White-bellied Parrot and Slate-colored Grosbeak (Pitylus grossus) of the middlestory and canopy. Territorial individuals of T. lawrencii sing these songs from a few frequently used perches high in the canopy and subcanopy of seasonally flooded forest. and over streams in terra firme. Most territories include a portion of a wooded swamp or forest stream; the thrushes forage in leaf litter at the edges of these habitats, and they also feed on small fruits plucked in flight from trees. I was unable to collect any of these birds, but their uniform brown coloration, white belly, and distinctive yellow bill and eye-ring make field identification easy. Lawrence's Thrush was known in Peru only from the northeast (Meyer de Schauensee 1966), but it has been taken on the Río Purús in southwestern Brazil (Gyldenstolpe 1951).

Pale-eyed Blackbird (Agelaius xanthophthalmus).—This blackbird is found in small numbers in floating marsh grasses and scattered bushes along the margins of Laguna Tres Chimbadas northeast of the reserve. The species is most easily seen in early morning when singing individuals perch atop bushes protruding above the grass. The song, tew-tew-tew-tew, is somewhat like that of the Black-capped Mockingthrush (Donacobius atricapillus), a common marsh inhabitant in the area, but it has a more piercing quality and is much less variable. The call note is a dry chek, like that of the Red-winged Blackbird (A. phoeniceus), but softer. Presumed immature birds, brown in coloration with vellowish, brownstreaked breasts, were also seen in the area. Only the uniform black adult plumage has been described (Short 1969). This uncommon, local icterid is now known from five localities in western Amazonia: Tingo Maria, Dpto. Huánuco, Peru, the type locality (Short 1969); Limoncocha, Prov. Napo-Pastaza, Ecuador (Tallman et al. 1977); Rioja, Dpto. San Martín, northern Peru (unpubl., and those of G. R. Graves); Manu National Park, Dpto. Madre de Dios (Terborgh et al., unpubl.); and from the reserve.

Flame-crested Tanager (Tachyphonus cristatus).—This wide-ranging Amazonian tanager is a common and conspicuous member of mixed-species flocks in the canopy of low-lying forest on the reserve. A specimen (LSUMZ 85490: 29 June 1977; skull fully pneumatized; testes enlarged; 23 g) from the nearby Río Heath is of the race madeirae. This is the first report of this form in Peru. T. cristatus apparently replaces the Yellow-crested Tanager (T. rufiventer) in southern Peru; the latter is common in Manu National Park only 150 km to the northwest.

Red-billed Pied-Tanager (Lamprospiza melanoleuca).—I have four records of this distinctive tanager on the reserve. All were of one to three birds associating with mixed-species flocks or aggregations of small birds in the canopies of fruiting trees in terra firme forest. The species was previously known from only two localities in Peru (Pearson 1975), but has also been found in Manu National Park (Terborgh et al., unpubl.). It has a wide range in northern South America, but apparently occurs in low densities, and may be local.

Yellow-shouldered Grosbeak (Caryothraustes humeralis).—Only recently reported for the first time in Peru (Parker and O'Neill 1980) and Bolivia (Remsen and Ridgely 1980), this bird was seen three times on the reserve in transitional forest. All records were of single birds in the company of tanagers, honeycreepers, and greenlets high in the canopy. Though my observations were brief, the grosbeaks appeared to be gleaning foliage near the ends of branches.

Connecticut Warbler (Oporornis agilis).—A male netted by J. Dunning on 17 November 1979, in second growth bordering the lodge clearing, represents the first documented occurrence of this species in Peru (LSUMZ 93669: testes minute; moderate body fat; 12.5 g; prepared by T. S. Schulenberg). This species was known in South America from only a few localities in Colombia, Venezuela, and Brazil, where specimens were taken as close to southeastern Peru as the Río Madeira (Meyer de Schauensee 1966). It is probably overlooked throughout its winter range. Few other North American breeding passerines reach southern Peru as migrants or wintering birds; the following have been recorded on the reserve: Eastern Kingbird (Tyrannus tyrannus), Eastern Wood Pewee (Contopus virens), Alder Flycatcher (Empidonax alnorum), Bank Swallow (Riparia riparia), Barn Swallow (Hirundo rustica), Gray-cheeked Thrush (Catharus minimus), Swainson's Thrush (Catharus ustulatus), C. fuscescens, Bobolink (Dolichonyx oryzivorus), Canada Warbler (Wilsonia canadensis), and Scarlet Tanager (Piranga olivacea).

Slate-colored Seedeater (Sporophila schistacea).—Small numbers of this seedeater were present in flowering Guadua bamboo within forest on the reserve from mid-August to late November 1980 (A. Van Den Berg, P.

Donahue, M. Robbins, pers. comms.), and again in late October 1981 (pers. obs.). A female (LSUMZ 98681: skull not pneumatized; ovary 4 × 3 mm; 13 g; iris brown; bill black; tarsi and feet dark olive) was collected 22 Nov. 1980 by M. Robbins. In both years several males were noted almost daily as they sang from exposed perches within or near the crowns of bamboo thickets 5-10 m above ground. Phonetically the unmelodious song is bzzztititi-psit-psit-psit-psit-psit-psit; several other variations of this are also uttered. Several singing males were also noted in flowering bamboo in lower montane forest about 3 road km northeast of Abra Divisoria, in the Cordillera Azul, Dpto. Huánuco from 7 August-4 September 1979 (pers. obs.: P. Donahue, V. Emanuel, pers. comms.). The occurrence of this rather enigmatic species seems to depend on the presence of flowering bamboo thus, it probably wanders widely through much of its range. This is the first report of the Slate-colored Seedeater from Peru; there was but one previous record of S. schistacea from south of Ecuador (Dpto, Beni, northern Bolivia [Mever de Schauensee 1966]).

SUMMARY

Information on behavior, distribution, and taxonomy is presented for 36 species of lowland forest and marsh birds of southeastern Peru. Specimen data are given for the poorly known species. The first Peruvian records of Chauna torquata, Porphyrula flavirostris, Coccyzus cinereus, Synallaxis albescens, Myrmotherula iheringi, Myiozetetes cayanensis, Catharus fuscescens, and Oporornis agilis are reported. Simoxenops ucayalae, Myrmeciza goeldii, and Poecilotriccus albifacies, all known from fewer than 10 specimens, are discussed. The antbird Percnostola macrolopha Berlioz is shown to be the male of P. lophotes. A variety of resident species, including Drymophila devillei and Ramphotrigon megacephala, are found to be intimately associated with bamboo thickets. Finally, a small component of the avifauna, including Coccyzus cinereus, Satrapa icterophrys, Casiornis rufa, Pseudocolopteryx acutipennis, Inezia inornata, and Turdus amaurochalinus, is comprised of austral migrants.

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